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Popov, V. P.

PHASE I BOOK EXPLOITATION 30V/4425

Leningrad. Institut inzhenerov zheleznodorozhnogo transporta

Avtomatika, telemekhanika i svyaz' (Automation, Telemechanics, and Communications) Moscow, Transzheldorizdat, 1960. 230 p. (Series: Its: Sbornik, vyp. 169) 1,000 copies printed.

General Ed.: V. N. Ilatov, Professor; Ed.: O. I. Naumkova.

Engineer: Tech. Ed.: Ye. N. Bobrova.

PURPOSE: This book is intended for technical personnel and scientists engaged in the fields of automation, telemechanics, and communications.

COVERAGE: This collection of articles presents various methods of analysis and synthesis of electric circuits. New designs are described and ways of improving technical and economic indices of communication instruments investigated. The articles contain computations for individual types of communication and telemechanical systems. No personalities are mentioned. Some of the articles are accompanied by references.

Table of Contents:

Popov, V. P., Engineer. Possibilities of Substituting Multichannel Radio Relay Communications for Wire Communications on Railroads and Selection of Multiplexing Equipment 123

The author recommends that frequency and time division of channels in radio relay communication systems be used simultaneously in railroad transportation as substitutes for wire communications systems. Included also are circuits of channel formation and separation for various railroad transportation services.

Sverdlichenko, D. Ya., Candidate of Technical Sciences. Investigation of the Possibility of Using a Reflex Diode as the Output Stage of a Pulse-Modulation Transmitter as a Radio Relay System 130

Having determined the useful power, pulse shape distortion, and the stability of radio pulse frequency of various types of reflex klystrons, the author concludes that they may be used as output stages of radio relay pulse transmitters operating on short range communication lines of railroad.

Petrov, I. ., Candidate of Technical Sciences, Docent. Piezoelectric Filter With Elastic Mechanical Bonds Between Crystals 135

The author presents several variants of bridge circuits with quartz piezoelectric wafers and gives formulas for the design of a quartz filter with mechanical bonds. There are two references, both Soviet.

Dyuzhev, S. I., Candidate of Technical Sciences, Docent. Planning of Railroad Division Communications 148

This article describes division communications which are defined as telephone communications between railroad employees within the limits of a railway division approximately 50 to 200 kilometers long. There are 3 references, all Soviet.

Popov, V. P., Candidate of Technical Sciences, Docent. Ways of Improving the Operation of Telegraph Communications 156

This article describes the operation of telegraph communications networks, failure [illegible] and methods of improving this operation. [illegible] references.

Dymkov, M. Ya., Engineer. Using Cathode-Ray Tracer for Cores for the Cathode-Ray Curve Tracer 162

The author describes the cathode-ray curve tracer as an instrument used for the examination of frequency characteristic parameters. The author describes the design of both the high and low frequency cathode-ray curve tracer and explains the application of the variable inductance core for which [illegible] reference. There is 1 Soviet reference.

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ACC NR: AP7002557 (A,N) SOURCE CODE: UR/0413/66/000/023/0037/0037

INVENTORS: Popov, V. P.; Yel'kind, A. I.; Yudin, R. N.

ORG: none

TITLE: Horn radiator. Class 21, No. 189033 [announced by Novosibirsk State University (Novosibirskiy Gosudarstvennyy universitet)]

SOURCE: Izobreteniya, promyshlennyye obraztsy, tovarnyye znaki, no. 23, 1966, 37

TOPIC TAGS: circular waveguide, waveguide element, HORN ANTENNA

ABSTRACT: This Author Certificate presents a horn radiator consisting of a circular horn coupled with a circular waveguide with the H_{01} wave. To produce a regulated single-lobe directional diagram, a half-cone reflector is placed in the horn aperture. A second half-cone reflector is mounted coaxially with the first such that their vertices are separated by a quarter-wavelength (see Fig. 1). To regulate the width of the directional diagram, movable conducting sectoral wedges are placed inside the horn.

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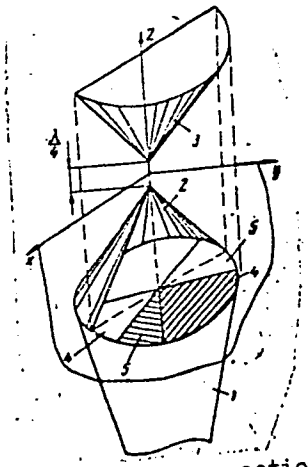

Fig. 1. 1 - circular cross section horn; 2 - lower half-cone; 3 - upper half-cone; 4 and 5 - sectoral inserts

Orig. art. has: 1 diagram.

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"APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001342410014-1

[redacted], A.I.; [redacted], V.I.

Calculation of the parameters of a nonuniform transistor RC circuit. Izv. vys. ucheb. zav.; radiotekh. 8 no.2:263-270 Mr-Ap '65. (MIRA 18:7)

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"APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001342410014-1

L 6490-66 EWT(1)/EWA(h)

ACC NR: AP5020933 SOURCE CODE: UR/0142/65/008/003/0371/0373

31
B

AUTHOR: Ponomarev, M. F.; Popov, V. P.

ORG: none

TITLE: Effect of a complex load on the frequency characteristics of a selective RC circuit with distributed parameters

SOURCE: IVUZ. Radiotekhnika, v. 8, no. 3, 1965, 371-373

TOPIC TAGS: thin-film circuit, receiver selectivity, RC circuit, parametric equation

25

ABSTRACT: The RC filter connected to the amplifier stage feedback circuit is frequently used for selective amplification. The most practical form of this filter for use in thin-film and semiconductor microcircuits is a combination of an RC filter with distributed parameters and a supplementary resistance, as shown in Fig. 1.

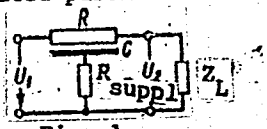

Fig. 1.

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L 6490-66

ACC NR: AP5020933

The dependence of the transfer factor of this filter on different active and reactive loads is examined. Curves are given showing the frequency dependence of the real and imaginary components of the transfer factor for active, reactive, and complex loads. The data is in good agreement with experiment. Orig. art. has: 6 figures, 4 formulas.

SUB CODE: 09/ SUBM DATE: 09Jul64/ ORIG REF: 001/ OTH REF: 003

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L 6442-66 EWT(1)/EWA(h)

ACC NR: AP5026197 SOURCE CODE: UR/0142/65/008/004/0451/0455

AUTHOR: Ponomarev, M. F.; Popov, V. P.; Kolesov, L. N.

ORG: none

TITLE: Effect of the resistance of a distributed RC-circuit base upon the characteristics of the selective filter

SOURCE: IVUZ. Radiotekhnika, v. 8, no. 4, 1965, 451-455

TOPIC TAGS: microelectronic circuit, microelectronic component

ABSTRACT: A microfilter comprising a semiconductor (or thin-film) RC-circuit and an additional resistor is theoretically considered. The effect of the base resistance NR upon the frequency characteristic slope and the transfer factor is analyzed for four schemes of connection of the additional resistor. Each scheme is regarded as two quadripoles connected in series. For a zero transfer factor, curves of the zero frequency, coefficient α_{01}, and characteristic slope vs. the coefficient $N = R_0/R$ (which characterizes the RC-circuit base resistance) are presented. It is found that the base resistance essentially impairs the selective-filter characteristics; hence, it is recommended that this resistance be reduced

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UDC: 621.375.13

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L 6442-66
ACC NR: AP5026197

by metal plating the semiconductor base, by choosing suitable base material, or by suitable arrangement of contacts. Orig. art. has: 4 figures, 5 formulas, and 2 tables.

SUB CODE: EC/ SUBM DATE: 09Jul64/ ORIG REF: 000/ OTH REF: 005

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"APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001342410014-1

POPOV, V.P.

Twenty-ton capacity tank barge. Biul.tekh.-ekon.inform.Gos.nauch.-issl.inst.nauch.i tekh.inform. 16 no.8:65 '63. (MIRA 16:10)

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"APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001342410014-1

POPOV, V.P., kand. tekhn. nauk, dotsent

Calculation of the operating cycle components of regenerative teletype rebroadcasts. Sbor. trud. LIIZHT no.186 Elektrosviaz' i radiotekhnika:131-146 '62. (MIRA 16:7)

(Railroads--Communication systems)

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"APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001342410014-1

POPOV, V.P., prof., otv. red.; BOGATYR, T.K., red.; DYBROVA, O.T., prof., red.; ZAMORIY, P.K., prof., red.; MARYNICH, O.M., doktor geogr. nauk, red.; POGREBNYAK, P.S. [Pohrebniak, P.S.], akademik, red.; PYSHKIN, B.A., red.; STAROVOYTENKO, I.P. [Starovoitenko, I.P.], kand. geogr. nauk, red.; KHARCHENKO, A.S., dots., red.; MEL'NIK, G.F. [Mel'nyk, H.F.], red.izd-va; TURBANOVA, N.A., tekhn. red.

[Materials on the meteorology and hydrology of the Ukraine] Materialy z meteorologii i gidrologii Ukrainy. Kyiv, Vydvo AN URSR, 1963. 140 p. (MIRA 16:10)

1. Akademiya nauk URSR, Kiev, Ukrains'ke geografichne tovarystvo. 2. AN Ukr.SSR (for Pogrebnyak). 3. Chlen-korrespondent AN Ukr.SSR (for Pyshkin).
(Ukraine--Meteorology) (Ukraine--Hydrology)

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AMMOSOV, I.I., red.; BURTSEV, D.N., red.; GORYUNOV, S.V., red.; GUSEV, A.I., red.; KOROTKOV, G.V., red.; KOTLUKOV, V.A., red.; KUZNETSOV, I.A., red.; MIRONOV, K.V., red.; MOLCHANOV, I.I., red.; NEKIPELOV, V.Ye., red.; PONOMAREV, T.N., red.; POPOV, V.P., red.; PROKHOROV, S.P., red; SKROBOV, S.A., red.; TYZHNOV, A.V., red.; SHABAROV, N.V., red.; YAVORSKIY, V.I., red.; BOBRYSHEV, A.T., red. toma; VINOGRADOV, B.G., red. toma; VOLKOV, K.Yu., zam. red. toma; LUGOVOY, G.I., zam. red. toma; OGARKOV, V.S., red. toma; SIMONOV, A.V., red. toma; IZRAILEVA, G.A., red.izd-va; IVANOVA, A.G., tekhn. red.

[Geology of coal and combustible shale deposits in the U.S.S.R.]Geologiia mestorozhdenii uglia i goriuchikh slantsev SSSR. Glav.red.I.I.Ammosov i dr. Moskva, Gosgeoltekhizdat. Vol.2. [Moscow Basin and other coal deposits in central and eastern provinces of the European part of the U.S.S.R.]Podmoskovnyi bassein i drugie mestorozhdeniia uglia tsentral'nykh i vostochnykh oblastei Evropeiskoi chasti RSFSR. 1962. 569 p. maps. (MIRA 15:9)

1. Russia (1923- U.S.S.R.)Ministerstvo geologii i okhrany nedr.

(Coal geology)

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POPOV, V.P., kand.tekhn.nauk; POPOV, A.P., inzhener-konstruktor

Analytical principles for the selection of materials, calculation of reliability and durability of machinery. Mashinostroitel' no.9:47 S '62. (MIRA 15:9)

1. Ural'skiy zavod tyazhelogo mashinostroyeniya imeni Sergo Ordzhonikidze (for A. Popov).
(Machinery--Design)

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"APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001342410014-1

BOGDANOV, V.P., inzh. (Tomsk); MIKHEYEV, V.P. (Tomsk); POPOV, V.P. (Tomsk)

"Plastics in railroad transportation" by I.P.Sitkovskii. Reviewed by V.P.Bogdanov, V.P.Mikheev, V.P.Popov. Zhel.dor.-transp. 44 no.11:95-96 N '62. (MIRA 15:11)
(Plastics) (Railroads--Equipment and supplies)
(Sitkovskii, I.P.)

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PETRENKO, Ya.I., inzh. (Khar'kov); GRUDIN, L.V., inzh. (Khar'kov); PICHAKCHI, I.N., inzh. (Khar'kov); LOMAKO, G.N., inzh. (Khar'kov); LURKUTSKIY, M.Ye., inzh. (Khar'kov); POPOV, V.P., inzh. (Khar'kov)

Chemical treatment building for the Northern Donets water pipeline of Kharkov. Vod.i san.tekh. no.5:31-32 My '62. (MIRA 15:7)

(Kharkov--Water--Purification)

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"APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001342410014-1

ARTEM'YEV, Yu.N., kand. tekhn. nauk; ASTVATSATUROV, G.G., inzh.; BARABANOV, V.Ye., inzh.; BARYKOV, G.A., inzh.; BISHOVATYY, S.I., inzh.; GALAYEVA, L.M., inzh.; GAL'PERIN, A.S., kand. tekhn. nauk; GAL'CHENKO, I.I., inzh.; GONCHAR, I.S., kand. tekhn. nauk; DEGTYAREV, I.L., kand. tekhn. nauk; DYADYUSHKO, V.P., inzh.; YERMAKOV, I.N., inzh.; ZHOTKEVICH, T.S., inzh.; ZUSMANOVICH, G.G., inzh.; KAZAKOV, V.K., inzh.; KOZLOV, A.M., inzh.; KOROLEV, N.A., inzh.; KRIVENKO, P.M., kand. tekhn. nauk; LAPITSKIY, M.A., inzh.; LEBEDEV, K.S., inzh.; LIBERMAN, A.R., inzh.; LIVSHITS, L.G., kand. tekhn. nauk; LOSEV, V.N., inzh.; LUKANOV, M.A., inzh.; LYUBCHENKO, A.M., inzh.; MAMEDOV, A.M., kand. tekhn. nauk; MATVEYEV, V.A., inzh.; ORANSKIY, N.N., inzh.; POLYACHENKO, A.V., kand. tekhn.nauk; POPOV, V.P., kand. tekhn. nauk; PUSTOVALOV, I.I., inzh.; PYTCHENKO, P.I., inzh.; PYATETSKIY, B.G., inzh.; RABOCHIY, L.G., kand. tekhn. nauk; ROL'BIN, Ye.M., inzh.; SELIVANOV, A.I., doktor tekhn. nauk; SEMENOV, V.M., inzh.; SKOROKHOD, I.I., inzh.; SLABODCHIKOV, V.I., inzh.; STORCHAK, I.M., inzh.; STRADYMOV, F.Ya., kand. tekhn. nauk; SUKHINA, N.V., inzh.; TIMOFEYEV, N.D., inzh.; FEDOSOV, I.M., kand. tekhn. nauk; FILATOV, A.G., inzh.; KHODOV, L.P., inzh.; KHROMETSKIY, P.A., inzh.; TSVETKOV, V.S., inzh.; TSEYTLIN, B.Ye., inzh.; SHARAGIN, A.M., inzh.; CHISTYAKOV, V.D., inzh.; BUD'KO, V.A., red.; PESTRYAKOV, A.I., red.; GUREVICH, M.M., tekhn. red.

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ARTEM'YEV, Yu.N.--- (continued) Card 2.

[Manual on the repair of machinery and tractors] Spravochnik po remontu mashinno-traktornogo parka. Pod red. A.I.Selivanova. Moskva, Sel'khozizdat. Vols.1-2. 1962. (MIRA 15:6)
(Agricultural machinery--Maintenance and repair)
(Tractors--Maintenance and repair)

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LANKO, A. I.; MARINICH, A. M.; POPOV, V. P.; PORYVKINA, O. V.

"Physical and geographical regionalization as a method of regional research."

report scheduled to be presented at the 20th Intl Geographical Cong, London, 6 Jul-11 Aug 64.

Univ. of Kiev.

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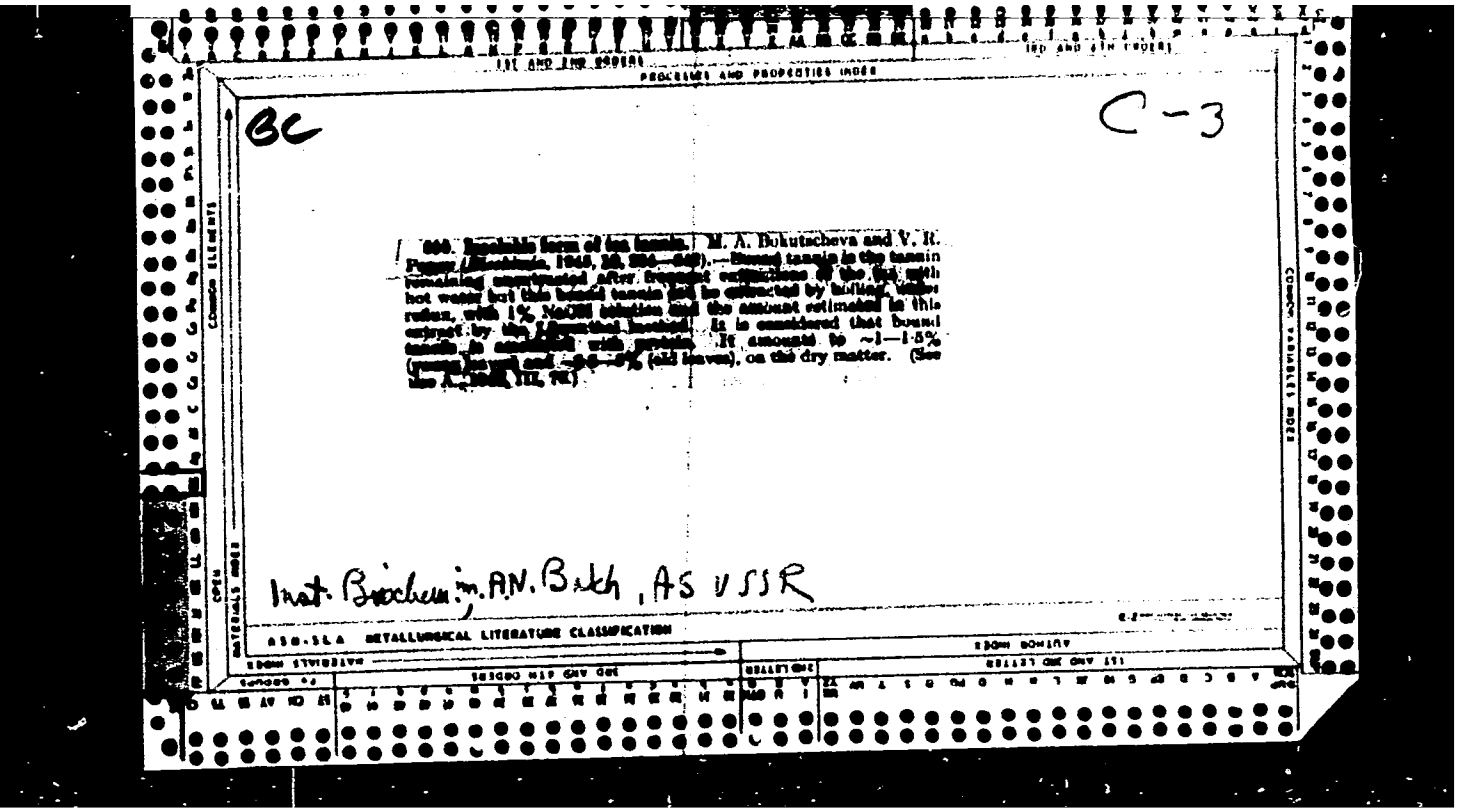

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666. Available form of tea tannin. M. A. Bukutacheva and V. R. Pogosyan (Biokhimiya, 1948, 13, 356—360).—Burnt tannin in the tannin remaining unextracted after frequent extractions of the fat with hot water but this burnt tannin can be extracted by boiling under reflux, with 1% NaOH solution and the amount estimated in this extract by the [illegible] method. It is considered that burnt tannin, in combination with protein, It amounts to ~1—1·5% (young leaves) and ~2·5—3% (old leaves), on the dry matter. (See also J., 1948, VII, 76.)

Inst. Biochem. im. A.N. Bakh, AS USSR

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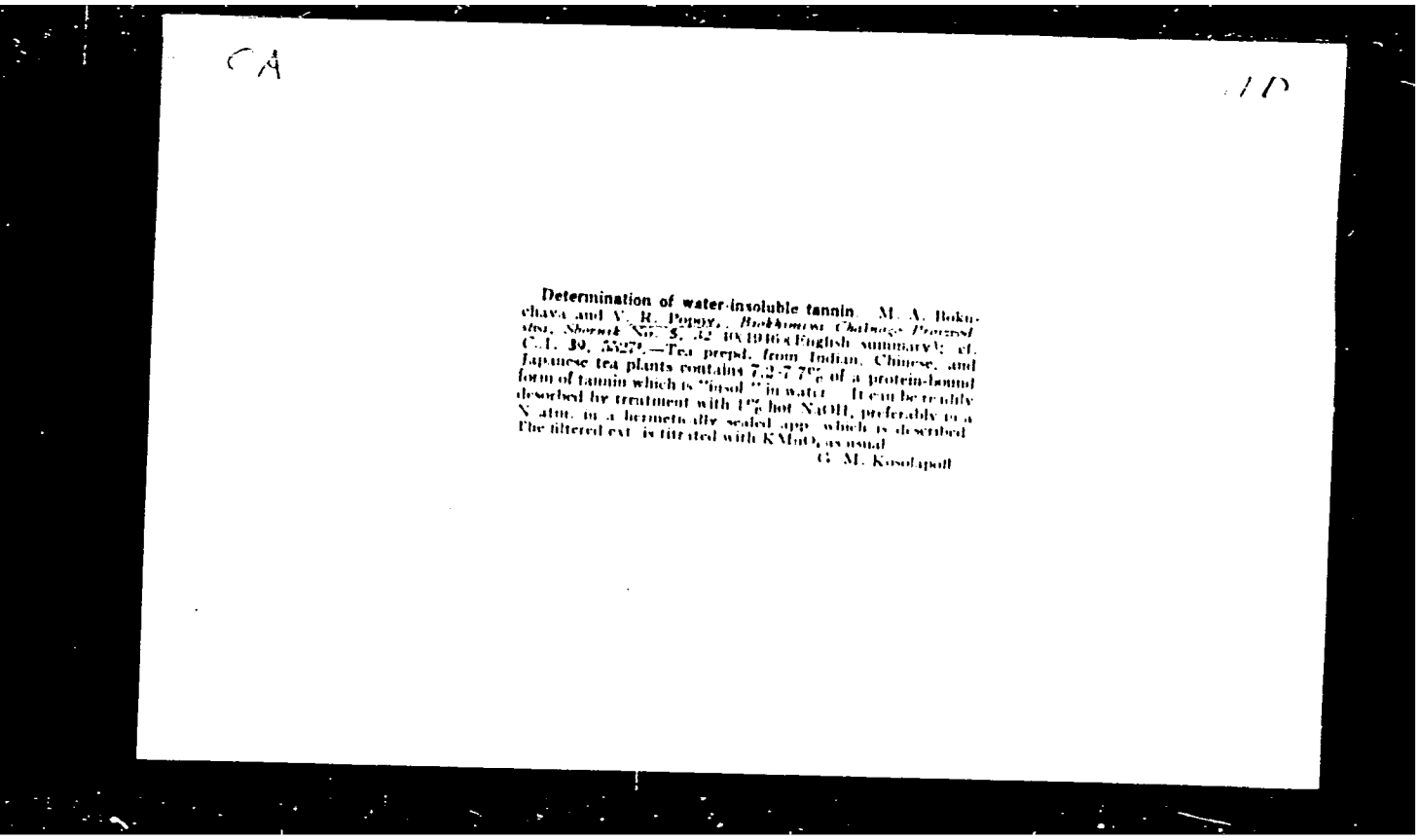

CA

11

Determination of water-insoluble tannin. M. A. Bokuchava and V. R. Peppy, *Bukhumsk. Chainaya Promyssl. Sbornik No. 5*, 32–8(1946)(English summary); cf. C.A. 39, 5527⁹.—Tea prepd. from Indian, Chinese, and Japanese tea plants contains 7.2–7.7% of a protein-bound form of tannin which is "insol." in water. It can be readily desorbed by treatment with 1% hot NaOH, preferably in a N atm. in a hermetically sealed app. which is described. The filtered ext. is titrated with $KMnO_4$ as usual.

G. M. Kosolapoff

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POPOV, V. R.

USSR/Chemistry - Tea
Chemistry - Enzymes

Jan/Feb 1948

"Oxidizing Ferments of Tea Leaves," M. A. Bokuchava, T. A. Shubert, V. R. Popov, Inst of Biochem imeni A. N. Bakh, Acad Sci USSR, Moscow, 8 pp

"Biokhim" Vol XIII, No 1

Object was to study more closely the soluble and unsoluble forms of tea leaf ferments, and to determine the possibility of their replacement conversion and their relation to various substrata.

Submitted 27 May 1947.

PA 64T23

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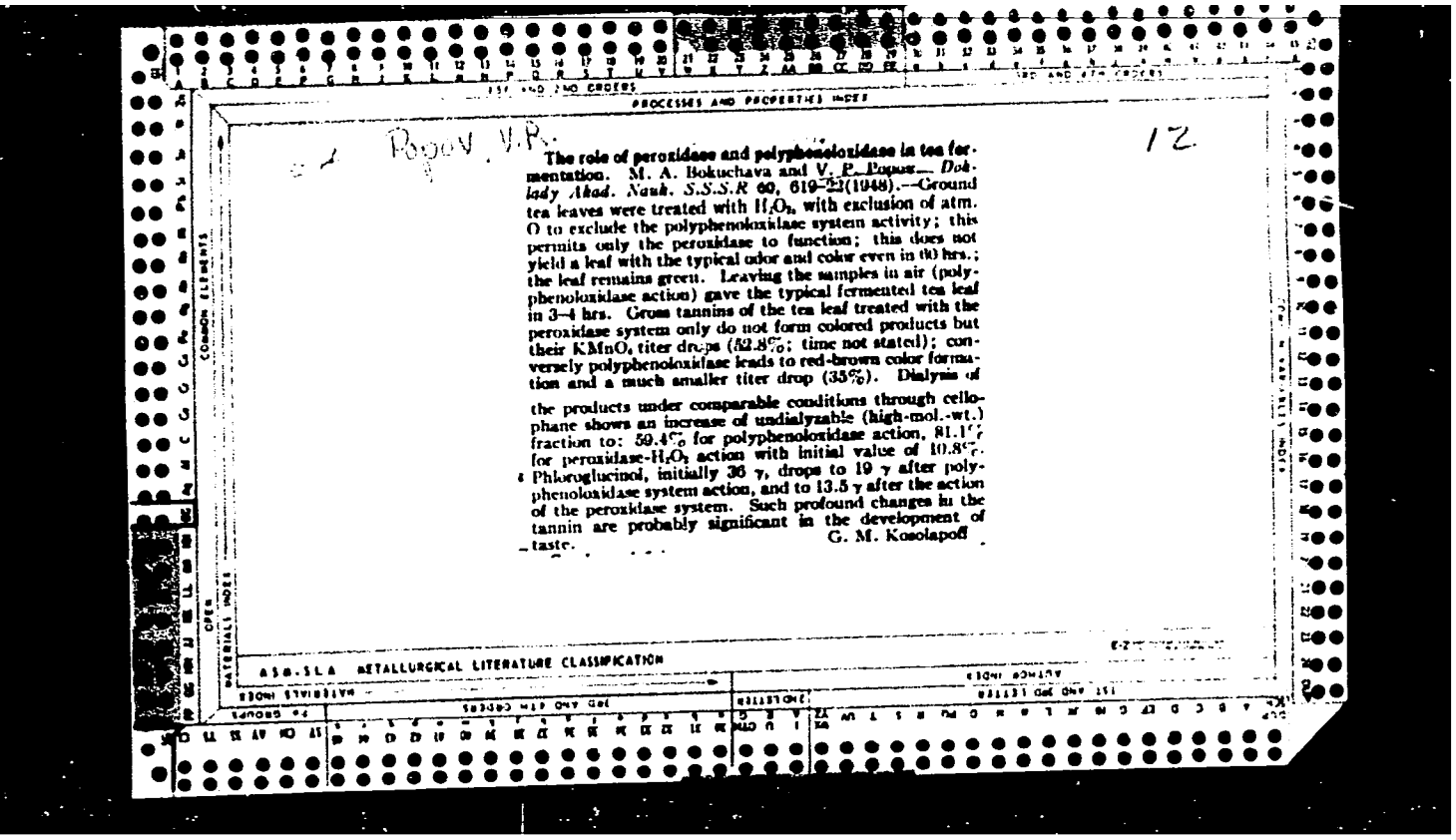

PROCESSES AND PROPERTIES INDEX

Popov, V.P.

12

The role of peroxidase and polyphenoloxidase in tea fermentation. M. A. Bokuchava and V. P. Popov. *Doklady Akad. Nauk. S.S.S.R* 60, 619–22(1948).—Ground tea leaves were treated with H_2O_2 with exclusion of atm. O to exclude the polyphenoloxidase system activity; this permits only the peroxidase to function; this does not yield a leaf with the typical odor and color even in 60 hrs.; the leaf remains green. Leaving the samples in air (polyphenoloxidase action) gave the typical fermented tea leaf in 3–4 hrs. Gross tannins of the tea leaf treated with the peroxidase system only do not form colored products but their $KMnO_4$ titer drops (52.8%; time not stated); conversely polyphenoloxidase leads to red-brown color formation and a much smaller titer drop (35%). Dialysis of the products under comparable conditions through cellophane shows an increase of undialyzable (high-mol.-wt.) fraction to: 59.4% for polyphenoloxidase action, 81.1% for peroxidase-H_2O_2 action with initial value of 10.8%. Phloroglucinol, initially 36 γ, drops to 19 γ after polyphenoloxidase system action, and to 13.5 γ after the action of the peroxidase system. Such profound changes in the tannin are probably significant in the development of taste.

G. M. Kosolapoff

ASB-SLA METALLURGICAL LITERATURE CLASSIFICATION

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CA

12

Secondary oxidative processes in tea fermentation. V. R. Popov. *Biokhimiya Chainogo Proizvodstva Sbornik* No. 6, 124–34(1959).—Oxidation of pyrocatechol by polyphenoloxidase, followed spectrographically, showed that in the presence of amino acids (glycine or tryptophan), peptones or sol. proteins (albumin) pink or purple colored pigments are formed. Oxidation of pyrocatechol alone gave green or brown pigments. Oxidation of tea catechols by preps. of Me$_2$CO exts. of polyphenoloxidase from tea, or by chem. methods, in the presence of glycine, the formation of pigments was accelerated and NH_3 was evolved. The reaction is thus similar to reactions of amino acids with oxidative changes (Oparin, *C.A.* **20**, 2871). The secondary oxidations of amino acids under such conditions may be responsible for formation of tea aroma during the fermentation step. Small amts. of amino acids can be detected in tea tannins, which supports this view. G. M. K.

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12

CA

Changes in tannins during production of green brick tea. M. A. Bokuchava, V. R. Popov, and E. K. Petrova. *Biokhimiya Chainogo Proizvodstva Sbornik* No. 0, 163-9(1950).—The tannins of the rough tea leaf (the grade used for brick tea production) suffer changes during production of green brick tea. Water-sol. tannins decline, largely at the expense of polyphenolcatechol fraction with simultaneous rise of tannin proper and of the bound forms of tannic substances. During the roasting process the active oxidative enzymes are inactivated, that of polyphenoloxidase being irreversible, that of peroxidase being temporary as some of its activity is reestablished in later steps of production. The fungi which are prominent during the production process definitely show activity of the polyphenoloxidase type which causes oxidation of tea tannins with absorption of atm. O. Prepn. of an aq. ext. of brick tea is connected with oxidation of tannins and proceeds via fermentation caused by the microfloral polyphenoloxidase activity. Since prolonged action of elevated temp. (50–60°) alters the tannin compn. a factory control of this factor is important. G. M. K

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CA

The role of tannins in oxidation-reduction processes in plants. M. A. Bokuchava, V. R. Popov, and T. A. Shubert. *Doklady Akad. Nauk S.S.S.R.* 76, 439–42 (1951).—Expts. with ascorbic acid and purified samples of polyphenolcatechins and tannins from tea leaves (using an acetone prepn. of tea polyphenoloxidase) showed that at 25° and pH 5.3, no oxidation of ascorbic acid occurs unless the tannins are present. Until ascorbic acid is oxidized, no pigment formation or loss of titer of the tannins takes place. Addn. of ascorbic acid to powd. tea leaves leads to a delayed increase of O absorption if the leaf fermentation processes are still proceeding. G. M. Kosolapoff

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"APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001342410014-1

FOFOV, V. R.

FOFOV, V. R. - "Oxidizing Processes in the Production of Tea." Sub 10 Apr 52, Inst of Biochemistry imeni A. N. Bakh, Acad Sci USSR. (Dissertation for the Degree of Candidate in Biological Sciences).

SO: Vechernaya Moskva January-December 1952

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"APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001342410014-1

USSR/ Biology - Biochemistry

Card 1/1 Pub. 86 - 15/40

Authors : Popov, V. R. Cand. of Biolog. Sc.

Title : The chemical nature of black tea aroma

Periodical : Priroda 3, 87-89, Mar 1954

Abstract : Biochemical data are presented, explaining the origin and chemical nature of black tea aroma. Five USSR references (1936-1952). Table.

Institution : Academy of Sciences USSR, The A. N. Bakh Institute of Biochemistry

Submitted : .....

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"APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001342410014-1

BOKUCHAVA, M.A.; POPOV, V.R.; SIDOROV, V.S.

Chromatographic separation of free aminoacids in fresh and wilted tea leaves. Dokl.AN SSSR 95 no.3:609-610 Mr '54. (MLRA 7:3)

1. Institut biokhimii im. A.N.Bakha Akademii nauk SSSR. Predstavleno akademikom A.I.Oparinym.
(Amino acids) (Tea) (Chromatographic analysis)

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"APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001342410014-1

POPOV, V.R.

USSR/ Chemistry - Biochemistry

Card 1/1 : Pub. 22 - 38/47

Authors : Bokuchava, M. A., and Popov, V. R.

Title : Importance of amino-acids in the formation of tea aroma during their reaction with tannic acid at higher temperature

Periodical : Dok. AN SSSR 99/1, 145-148, Nov 1, 1954

Abstract : The role and value of amino-acids in the development of tea aroma during their reaction with tannic acid at higher temperatures are explained. Seven USSR references (1927-1952). Tables.

Institution : Academy of Sciences USSR, The A. N. Bakh Institute of Biochemistry

Presented by : Academician A. I. Oparin, August 21, 1954

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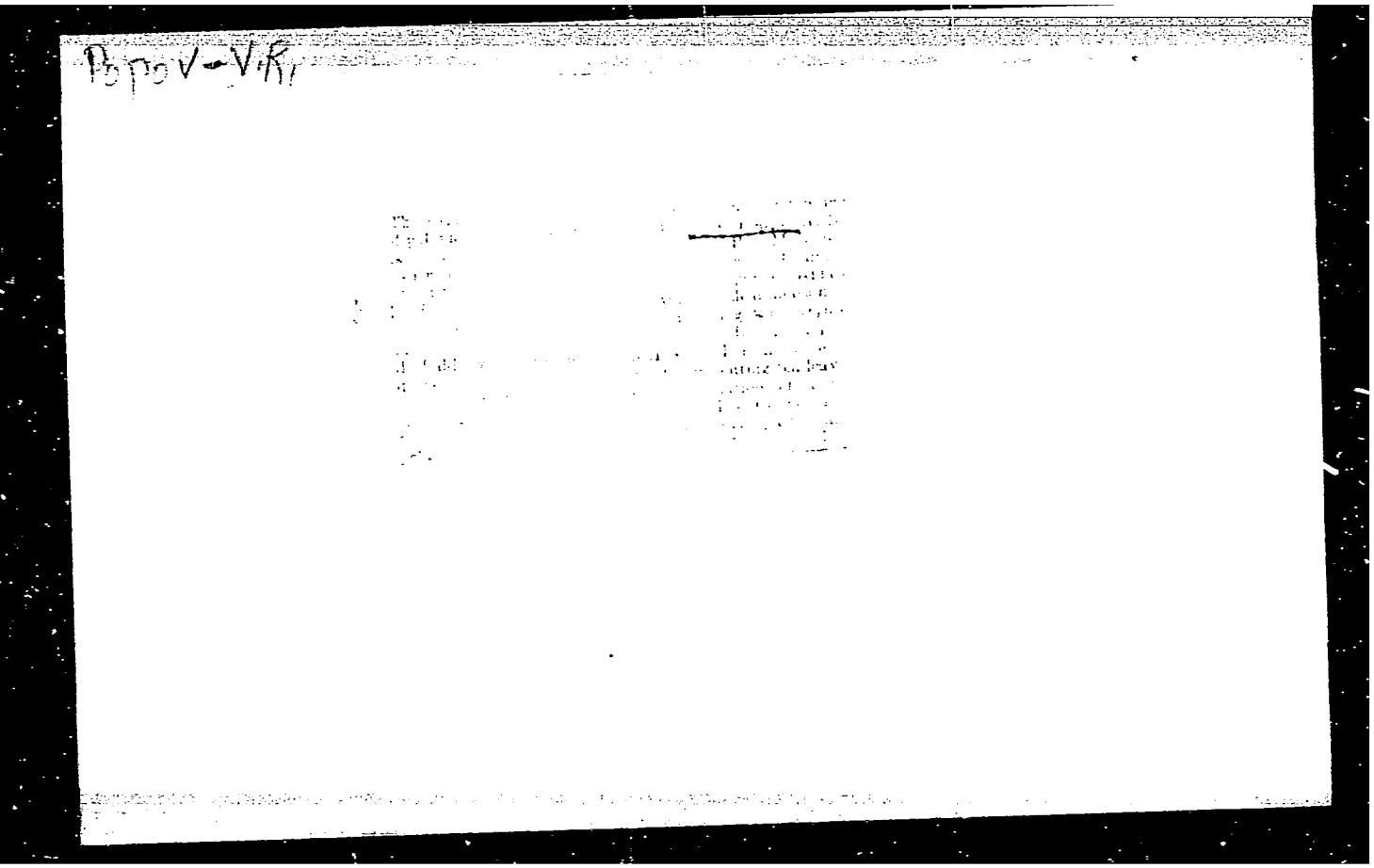

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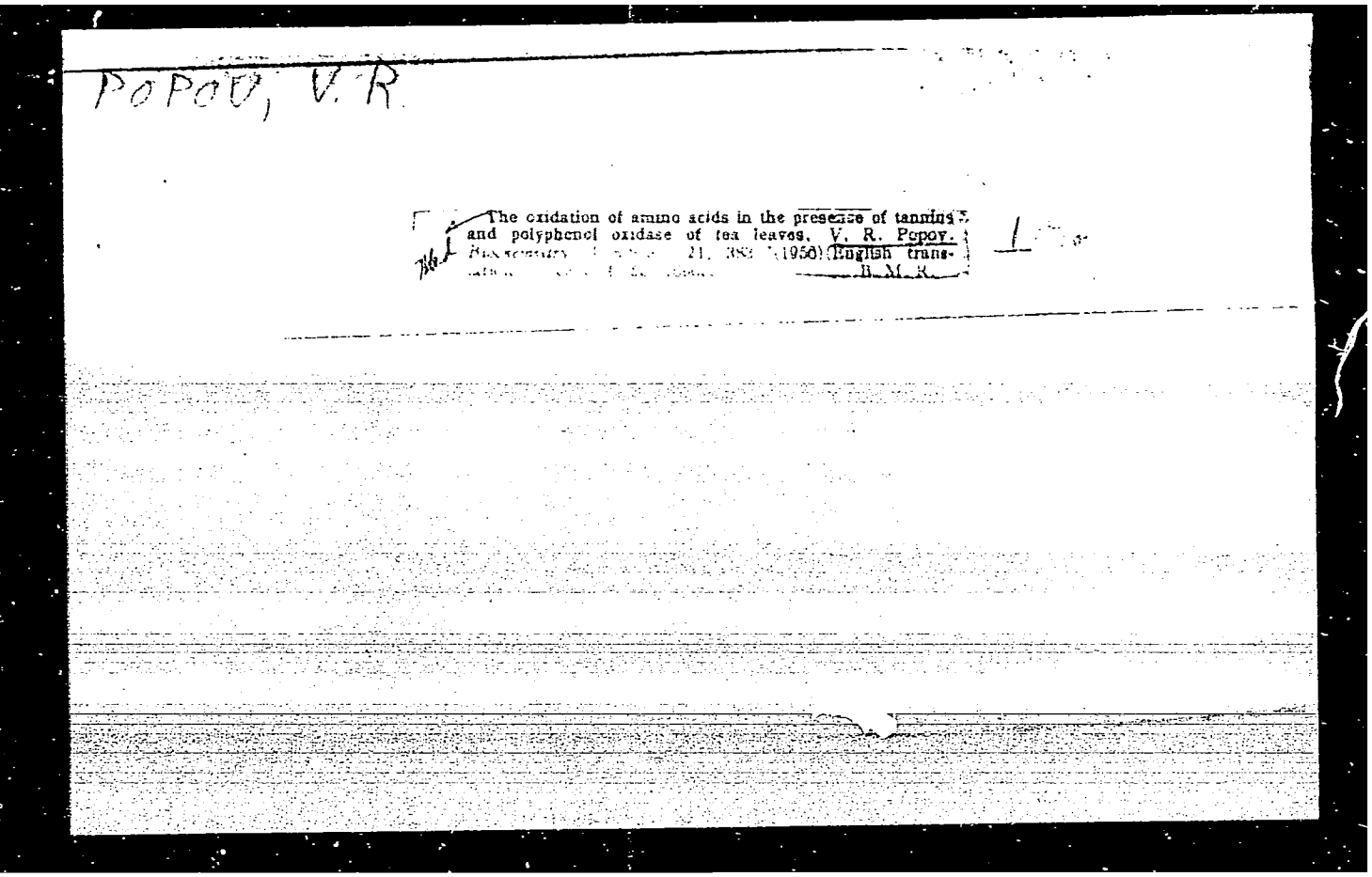

POPOV, V. R.

The oxidation of amino acids in the presence of tanning and polyphenol oxidase of tea leaves. V. R. Popov. Biokhimiya 21, 382 (1956) English trans- B M R

1

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"APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001342410014-1

POPOV, V. R.

Vitamin P activity in various kinds of tea. M. A. Bokuchava, V. N. Bukin, N. N. Efefeeva, and V. R. Popov (A. N. Bakh Biochem. Inst., Moscow). *Doklady Akad. Nauk S.S.S.R.* 111, 152–4(1956).—Expts. with feeding of white rats with aq. exts. of different kinds of tea showed that green tea has the highest vitamin P activity (tested by time of appearance of petechial hemorrhages after vacuum test on the skin) followed by black, yellow, and red varieties of tea. Caffeine per se does not show vitamin P activity.

G. M. Kosolapoff

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"APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001342410014-1

20-114-6-40/54

AUTHORS: Bokuchava, M. A., Popov, V. R.

TITLE: Transformations of Nitrogenous Substances During the Thermal Treatment of Tea (Prevrashcheniya azotistykh veshchestv pri termicheskoy obrabotke chaya).

PERIODICAL: Doklady AN SSSR, 1957, Vol. 114, Nr 6, pp. 1284-1286 (USSR)

ABSTRACT: In earlier papers (references 1-3) the authors proved the participation of amino acids in the formation of aldehydes which are of importance for the aroma of tea. In the present work the authors investigated the influence of the thermal treatment upon the substances mentioned in the title. For this purpose they analyzed tea samples which had been subjected to this treatment and samples (as control) which stemmed from a hitherto valid technological process. The total nitrogen as well as the soluble protein- and nonprotein-nitrogen (table 1) were determined by means of the micro-method (reference 4). From this may be seen that the test- and control-samples only insignificantly differ from each other with regard to the fractions of the soluble protein- and nonprotein-nitrogen. The influence of the thermal treatment upon the amount of free amino acids was chromatographically investigated on paper. They were

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Transformations of Nitrogenous Substances During the Thermal Treatment of Tea

extracted with 80% ethyl alcohol. In the test- as well as in the control-samples the authors determined: lysine, histidine and arginine, serine, aspartic acid, glutamic acid, alanine, "theanine", "valine", phenylalanine and leucine. No marked difference in the amount of free amino acids between tea with and without thermal treatment can be seen from the chromatograms (figure 1). Furthermore the free amino acids were quantitatively determined from the individual dyed and cut out strips of the chromatogram. They were washed out with 50% methyl alcohol and the liquid was then colorimetrically determined. From the data of table 2 follows that the heat-treatment influences the transformation of free amino acids in this respect that the content of some of them (serine, glutamic acid, phenylalanine and leucine) increases. This indicates that in the thermal treatment the oxidative processes do not go as far as in an ordinary fermentation. This is also indicated by the comparison of a not fully fermented tea with a tea that fermented for 5-6 hours (table 3). The not fully fermented tea differs from the latter by a higher content of histidine and arginine, serine,

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"APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001342410014-1

Popov V. R.

AUTHORS: Bokuchava, M. A., Doctor of Biological Sciences, 30-2-26/49
Popov, V. R., Candidate of Biological Sciences

TITLE: Investigations in the Field of the Biochemistry and Technology of Tea in India (Raboty po biokhimii i tekhnologii chaya v Indii)

PERIODICAL: Vestnik Akademii Nauk SSSR, 1958, Nr 2, pp. 91-91 (USSR)

ABSTRACT: Tea industry takes the second place in the political economy of India. Approximately 7o % of the tea production of the country is produced in Assam (North-Eastern India), where already in 1911 the experimental station Toklay was founded, which also now is the main center of scientific research in the field of biochemistry and technology of tea in India. The staff numbers about 17o people. Here the scientific research dealing with botany and tea selection, agricultural technique and the protection of the tea plant and other problems is conducted, on which the authors report in detail. The station has modern equipment. An experimental plant is attached to the station, where experiments are performed on

Card 1/2

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"APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001342410014-1

Investigations in the Field of the Biochemistry and Technology of Tea in India

30-2-26/49

the perfection of the production technology of tea. The experimental station has at its disposal scientific advisers in every great tea region of the country, which perform various urgent work on the spot. The experimental station Kunur (Southern tropical region) conducts work in the field of botany, agricultural technique, application of chemistry, disease- and pest control. The Technological Institute for Foodstuffs at Maysur also deals with tea problems, as well as a laboratory of the University of Calcutta.

AVAILABLE: Library of Congress

1. Tea-Biochemistry 2. Tea-Economic aspects-India 3. Tea-Growth-India 4. Tea-India

Card 2/2

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"APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001342410014-1

POPOV, V.N.

Quantitative determination of ammonia in tannin-bearing plants [with summary in English]. Biokhimiia 23 no.1:37-40 Ja-F '58. (MIRA 11:3)

1. Institut biokhimii im. A.N.Bakha AN SSSR, Moskva.
(TANNINS) (PLANTS--CHEMICAL ANALYSIS) (AMMONIA)

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"APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001342410014-1

POPOV, V.R.

Polyphenoloxidase activity in tea shoots during growth and technological processing [with summary in English]. Biokhimiia 23 no.6:856-961 N-D '58 (MIRA 11:12)

1. Institut biokhimii imeni A.N. Bakha AN SSSR, Moskva.
(TEA)
(PHENOLASES)

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BOKUCHAYEVA, M.A.; POPOV, V.R.

Studying amino acids in the leaves of Georgian and Indian tea by paper chromatography. Biokhim.chain.proizv. no.7:111-113 '59. (MIRA 13:5)

1. Institut biokhimii im. A.N. Bakha AN SSSR, Moskva.
(TEA) (AMINO ACIDS) (CHROMATOGRAPHIC ANALYSIS)

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"APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001342410014-1

POPOV, V.R.

New amide in tea. Biokhim.chain.proizv. no.7:163-166 '59. (MIRA 13:5)

1. Institut biokhimii im. A.N. Bakha AN SSSR, Moskva.
(TEA) (GLUTAMIC ACID)

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"APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001342410014-1

POPOV, V.R.

Method for determining the ammonia content of tea. Biokhim. chain.proizv. no.7:182-188 '59. (MIRA 13:5)

1. Institut biokhimii im A.N. Bakha AN SSSR, Moskva.
(TEA) (AMMONIA)

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"APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001342410014-1

POPOV, V.R.

Oxidative enzymes in the tea plant. Biokhimiia 30 no.6:1137-1141 N-D '65. (MIRA 19:1)

1. Institut biokhimii imeni A.N.Bakha AN SSSR, Moskva.
Submitted November 18, 1964.

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"APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001342410014-1

SKOBELEVA, N.I.; POPOV, V.R.

Interaction between tannins, amino acids, and sugars at increased temperatures. Biokhim. chain. proizv. no.9:185-188 '62. (MIRA 16:4)

1. Institut biokhimii imeni A.N.Bakha AN SSSR, Moskva.
(Tanning materials) (Amino acids) (Sugar) (Tea)

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ROBERTS, Ye. [deceased]; POPOV, V.K. [translator]

Evaluation of the quality of teas with the aid of chemical analysis. Biokhim. chain. proizv. no.9:148-157 '62. (MIRA 16:4)

1. Indiyskaya chaynaya assotsiatsiya, London.
(Tea—Testing)

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"APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001342410014-1

ROBERTS, Ye. [deceased]; RASTIDZH, D.; POPOV, V.R. [translator]

Volatile aldehydes in the extracts of black tea. Biokhim. chain. proizv. no.9:182-184 '62. (MIRA 16:4)
(Aldehydes) (Tea)

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"APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001342410014-1

POPOV, V.R.

Enzymatic oxidation of phloroglucinol in plants. Biokhimiia 25 no.2: 273-275 Mr-Ap '60. (MIRA 14:5)

1. Institut biokhimii im. A.N.Bakha Akademii nauk SSSR, Moskva.
(PHLOROGLUCINOL) (PLANTS--METABOLISM)

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"APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001342410014-1

POPOV, V. R., and SKOBELEVA, N. I. (USSR)

"Reaction between Tannins, Amino-Acids and Sugar at High Temperatures."

Report presented at the 5th International Biochemistry Congress, Moscow, 10-16 Aug 1961

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"APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001342410014-1

BOKUCHAVA, M.A.; POPOV, V.R.; KNYAZEVA, A.M.; UL'YANOVA, M.S.

Chemical composition and quality of Indian tea leaves and black tea. Biokhim. chain. proizv. no.8:111-128 '60. (MIRA 14:1)

1. Institut biokhimii imeni A.N. Bakha AN SSSR, Moskva.
(Tea)

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"APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001342410014-1

POPOV, V.R.

Nature of enzymatic oxidation of phloroglucinol in tea. Biokhim. chain. proizv. no.8:150-154 '60. (MIRA 14:1)

1. Institut biokhimii imeni A.N. Bakha AN SSSR, Moskva.
(Tea) (Phloroglucinol) (Oxidation)

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"APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001342410014-1

POPOV, V.S.

BELYAYEV, I.I., professor; BUDRIN, R.N., professor; YURASOVA, T.S., vrach; KOZLOVA, T.V., vrach; POPOV, V.S., vrach

Hygienic problems in the formation and utilization of Gorkii Reservoir. Gig. i san. 22 no.4:61-64 Ap '57. (MLRA 10:9)

1. Iz Gor'kovskogo meditsinskogo instituta imeni S.M.Kirova.
(WATER SUPPLY,
creation & utilization of watershed (Rus))

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"APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001342410014-1

Popov, V.S.

VOLKOV, N.Z.; SMERTYUK, V.G.; POPOV, V.S.

Spongolite is a natural filler for lightweight concrete. Shakht. stroi. no.8:30 Ag '57. (MLRA 10:9)
(Spongolite) (Concrete)

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POPOV, V.S

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28(1); 25(1)

Zholdak, Sergey Afanas'yevich, Yakov Yakovlevich Lychagin, and Vitaliy Semenovich Popov

Tekhnologiya izgotovleniya elektroelementov dlya elektroavtomaticheskikh ustroystv (Manufacturing Processes for Electric Elements of Automatic Electric Systems) Moscow, Oborongiz, 1959, 423 p. Errata slip inserted, 6,000 copies printed.

Reviewers: N.N. Ushakov, Candidate of Technical Sciences, Docent, and M.M. Zil'bersheyd, Engineer; Ed.: S.A. Abaza, Engineer; Managing Ed.: A.I. Sokolov; Ed. of Publishing House: G.F. Loseva; Tech. Ed.: V.P. Rozhin.

PURPOSE: This book may be useful to engineers and technicians by helping them solve practical problems they meet in their plants, and also for vuz students concerned with the production of electrical elements of automatic electric apparatus.

COVERAGE: The authors discuss the design problems and manufacturing of electric small-size machines used in automatic electric systems. They describe selsyn generators and motors, mag-slips, servomotors and rotary transformers, and modern methods for manufacturing the parts of these machines. They also discuss

Card 1/8

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"APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001342410014-1

SOV-26-58-11-15/49

AUTHORS: Mel'nikov, O.A., Professor, Popov, V.S. (Leningrad, Pulkovo)

TITLE: The Spectra of Non-Stationary Stars (O spektrakh nestatsionarnykh zvezd)

PERIODICAL: Priroda, 1958, Nr 11, pp 83 - 84 (USSR)

ABSTRACT: Tentative explanations of the nature of the energy radiated by continuous emission in the spectra of non-stationary stars are given by foreign astronomers and the two Soviet scientists L.V. Mirzoyan and V.A. Ambartsumyan. Mirzoyan holds that the true nature of the non-thermal emission has not yet been discovered. Ambartsumyan thinks that this emission starts in the upper atmospheric layers by way of "discrete" portions of energy that came from the deep layers of the star and were transformed into optical radiation. There is 1 graph and 7 references; 1 of which is English, 2 German and 4 Soviet.

1. Stars--Spectra

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23697

S/035/61/000/004/027/058
A001/A101

3,1520

AUTHOR: Popov, V.S.

TITLE: Some properties of β Cep stars

PERIODICAL: Referativnyy zhurnal. Astronomiya i Geodeziya, no. 4, 1961, 26, abstract 4A279 ("Peremennyye zvezdy", 1960, v. 12, no. 6, 380-390, Engl. summary)

1959*

TEXT: The first part contains the results of a spectrophotometrical investigation of continuous emission of six β Cep stars on the basis of data obtained by the author. It was found out that the maximum spectrophotometrical temperature corresponds to maximum luminosity phase, and that temperature of the stars changes by about 1,000° during the period of luminosity variation, for the photographic region of the spectrum somewhat more. The second part considers the K-effect for the group of β Cep stars. It was determined as equal to +2.7 km/sec, which is fully explained by the gravitational effect and effect of the growth curve. There are 19 references.

Author's summary

[Abstracter's note: Complete translation]

(* MIRA 13:9)

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"APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001342410014-1

44083

S/573/62/000/007/010/015
D201/D308

26.1630

AUTHOR: Popov, V.S.

TITLE: Frequency doublers using thermal converters

SOURCE: Akademiya nauk SSSR. Institut elektromekhaniki. Sbornik rabot po voprosam elektromekhaniki. no. 7, 1962. Avtomatizatsiya, telemekhanizatsiya i priboro-stroyeniye, 331-334

TEXT: The author considers the fundamentals of frequency doublers using thermocouples and Wollaston wire and gives the results of an experimental investigation carried out at the IEM AN SSSR (IEM AS USSR) of three types of frequency doublers: 1) thermocouple TB6-2 (TVB-2), in a non-evacuated capsule: time constant T ≈ 0.03 sec, heater resistance r = 130 ohms, nominal heater current I = 15 ma; 2) indirectly heated Wollaston wire. Non-evacuated capsule. Heater: nichrome wire, diameter = 10 microns, r = 310 ohms. Resistive element: glass sleeved copper wire, diameter of core = 3 microns. Resistance 45 ohms at t = 20°C, time constant T = 0.02 sec.

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"APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001342410014-1

S/056/62/043/006/054/067
B102/B186

AUTHORS: Blokhintsev, L. D., Dolinskiy, E. I., Popov, V. S.

TITLE: The complex singularities of the amplitudes of direct nuclear reactions

PERIODICAL: Zhurnal eksperimental'noy i teoreticheskoy fiziki, v. 43, no. 6(12), 1962, 2290-2298

TEXT: The complex amplitude singularities on the physical sheet are investigated for non-relativistic single-loop graphs with arbitrary masses. A classification of the singularities is given and rules for separating them are discussed. On the example of the triangular graphs of direct nuclear interactions of the type A+x → B+y+z it is shown that complex singularities with respect to the transferred momentum t_{xy} may arise near the physical region. Therefore investigations of the complex singularities are of importance for the dispersion theory of direct nuclear interactions. From the integral representation of the amplitude

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The complex singularities of the...

$$F_{n1}(\eta_{ij}) = C_{n1}\int_0^1 \prod_{l=1}^{n} d\alpha_l \delta\left(\sum_{k=1}^{n}\alpha_k - 1\right)\delta\left(\sum_{l=1}^{n}\omega_l m_l \alpha_l\right)(X - i\delta)^{-(n-3/2)}, \quad (1)$$
$$\delta \to +0;$$

a unique analytic expression is derived for F_{31} of a triangle graph with constant vertices:

$$F_{31}(\eta_{ij}) = C_{31}(\eta_{23}^0 - \xi_{23})^{-1/2}\varphi(z); \quad (11)$$

$$C_{31} = i\pi^3\left[\frac{2}{m_1 m_2 (m_1+m_2)(m_1+m_3)}\right]^{1/2}, \quad \varphi(z) = \frac{1}{2\sqrt{z}}\ln\frac{1+\sqrt{z}}{1-\sqrt{z}}, \quad (12)$$

$$z = \frac{\eta_{23} - \eta_{23}^0}{\xi_{23} - \eta_{23}^0}, \quad \eta_{23}^0 = m_1(m_2 - m_3)\left[\frac{\eta_{13}}{m_2(m_1+m_3)} - \frac{\eta_{12}}{m_3(m_1+m_2)}\right], \quad (13)$$

$$\xi_{23} = \begin{cases} \eta_{23}^- = \eta_{12} + \eta_{13} - 2(\eta_{12}\eta_{13})^{1/2} & \text{при } \eta_{12} < 0,\ \eta_{13} < 0 \\ \xi_{23}^+ = \eta_{12} + \eta_{13} + 2i(-\eta_{12}\eta_{13})^{1/2} & \text{при } \eta_{12}\eta_{13} < 0 \\ \eta_{23}^+ = \eta_{12} + \eta_{13} + 2(\eta_{12}\eta_{13})^{1/2} & \text{при } \eta_{12} > 0,\ \eta_{13} > 0 \end{cases}. \quad (14)$$

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The complex singularities of the...

$$(\eta_{23}^0 - \xi_{23})^{1/2} = (\omega_{23} |\eta_{12}|)^{1/2} + (\omega_{23}^{-1} |\eta_{13}|)^{1/2} \text{ при } \eta_{12} < 0,\ \eta_{13} < 0,$$

$$\omega_{23} = m_2 (m_1 + m_3) / m_3 (m_1 + m_2). \tag{15}$$

$$(\eta_{23}^0 - \xi_{23})^{1/2} = \begin{cases} (\omega_{23} |\eta_{12}|)^{1/2} + (\omega_{23}^{-1} |\eta_{13}|)^{1/2} & \text{при } \eta_{12} < 0,\ \eta_{13} < 0 \\ (\omega_{23} |\eta_{12}|)^{1/2} - i (\omega_{23}^{-1} \eta_{13})^{1/2} & \text{при } \eta_{12} < 0,\ \eta_{13} > 0 \\ -i (\omega_{23} \eta_{13})^{1/2} + (\omega_{23}^{-1} |\eta_{13}|)^{1/2} & \text{при } \eta_{12} > 0,\ \eta_{13} < 0 \\ -i [(\omega_{23} \eta_{13})^{1/2} + (\omega_{23}^{-1} \eta_{13})^{1/2}] & \text{при } \eta_{12} > 0,\ \eta_{13} > 0 \end{cases} \tag{16}$$

The η_{ij} are external kinematic invariants (cf. Blokhintsev et al. Nucl. Phys. in print), $\omega_i = \pm 1$ indicates the direction of the i-th inner line of the graph. The analytical properties and the asymptotic behavior of F_{31} are investigated.

$$F_{31}(\eta_{ij}) \approx \begin{cases} \frac{1}{2} \pi C_{31} |\eta_{23}|^{-1/2} & \text{при } \eta_{23} \gg |\eta_{12}|,\ |\eta_{13}| \\ h(\omega_{23}) C_{31} |\eta_{13}|^{-1/2} & \text{при } -\eta_{13} \gg |\eta_{12}|,\ |\eta_{23}|. \\ h(\omega_{23}^{-1}) C_{31} |\eta_{12}|^{-1/2} & \text{при } -\eta_{12} \gg |\eta_{13}|,\ |\eta_{23}| \end{cases} \tag{17}$$

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The complex singularities of the...

is obtained where $h(\omega)$ for $0 \leq \omega < \infty$ is given by

$$h(\omega) = \begin{cases} \frac{1}{2}\left(\frac{\omega}{1-\omega}\right)^{1/2} \ln \frac{1+\sqrt{1-\omega}}{1-\sqrt{1-\omega}} & \text{при } 0 < \omega < 1 \\ 1 & \text{при } \omega = 1 \\ \left(\frac{\omega}{\omega-1}\right)^{1/2} \operatorname{arctg} \sqrt{\omega-1} & \text{при } \omega > 1 \end{cases} \quad (18)$$

There are 6 figures.

ASSOCIATION: Institut yadernoy fiziki Moskovskogo gosudarstvennogo universiteta (Institute of Nuclear Physics of Moscow State University); Institut teoreticheskoy i eksperimental'noy fiziki (Institute of Theoretical and Experimental Physics)

SUBMITTED: July 24, 1962

Card 4/5

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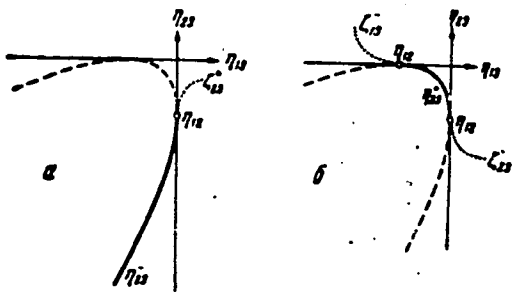
The complex singularities of the...



$$\eta_{23} = \bar{\zeta}_{23} = \eta_{12} + \eta_{13} - 2i\,(-\eta_{12}\eta_{13})^{1/2} \text{ при } \eta_{12} < 0,\ \eta_{13} > 0,$$
$$\eta_{13} = \bar{\zeta}_{13} = \eta_{12} + \eta_{23} - 2i\,(-\eta_{12}\eta_{23})^{1/2} \text{ при } \eta_{12} < 0,\ \eta_{23} > 0.$$

Fig. 2. Curves of the real and complex singularities of the amplitude F_{31}. a) for $\eta_{12} < 0$; b) for $\eta_{12} < \eta_{13} < 0$; solid lines: real singularities of F_{31} on the physical sheet; dashed lines: real singularities, not on the physical sheet; dotted lines: complex singularities on the physical sheet.

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"APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001342410014-1

ACCESSION NR: AP4036519 S/0103/64/025/005/0733/0736

AUTHOR: Belen'kiy, B. Z. (Leningrad); Popov, V. S. (Odessa)

TITLE: Proportional resistance-to-frequency converter

SOURCE: Avtomatika i telemekhanika, v. 25, no. 5, 1964, 733-736

TOPIC TAGS: resistance frequency converter, proportional resistance frequency converter, telemeter, telemetering

ABSTRACT: A converter developed by the authors (Certificate no. 143570, dated 1 Dec 60) consists of a measuring, automatically balanced bridge ABCD and an RC oscillator (see Fig. 1 of the enclosure). The measurand R_x is connected into one arm of the bridge, while the opposite arm contains an indirectly heated resistor R_3 whose heater is in series with heaters R_4 and R_5. The heaters, via an amplifier and a phase-sensitive rectifier, are connected across the measuring diagonal of the bridge; this ensures the automatic balancing. Resistors R_4 and R_5 make up

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ACCESSION NR: AP4036519

adjacent arms of a Wien bridge, thereby controlling the RC-oscillator frequency. The frequency is $f \approx R_s/2\pi CR_1R_2$. Errors due to various sources are assessed. A laboratory hookup used for experimental verification is briefly described; with the frequency varying by 80%, the readout time was 0.6 sec or less. Orig. art. has: 2 figures.

ASSOCIATION: none

SUBMITTED: 15Jan63 ATD PRESS: 3081 ENCL: 01

SUB CODE: EC NO REF SOV: 004 OTHER: 000

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"APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001342410014-1

ACCESSION NR: AP4036519

ENCLOSURE: 1

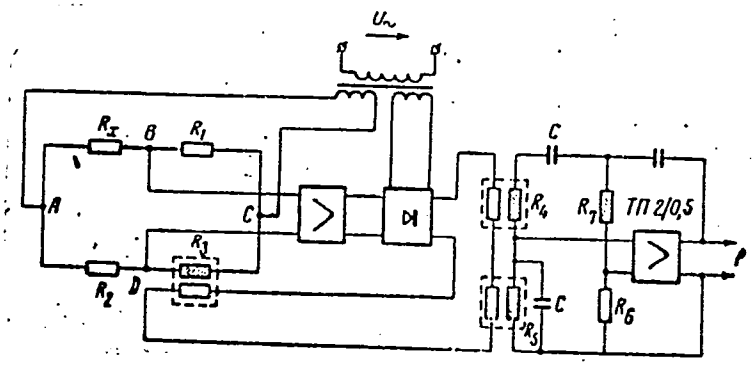

Fig. 1. Resistance-to-frequency converter for telemetering purposes

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"APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001342410014-1

POPOV, V.S.; DOLINSKIY, E.I.

Group properties of the complex angular momentum. Zhur. eksp. i teor. fiz. 46 no.5:1829-1841 My '64. (MIRA 17:6)

1. Institut teoreticheskoy i eksperimental'noy fiziki i Institut yadernoy fiziki Moskovskogo gosudarstvennogo universiteta.

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"APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001342410014-1

ACCESSION NR: AP4043648 S/0056/64/047/002/0697/0707

AUTHORS: Dolinskiy, E. I.; Popov, V. S.

TITLE: Regge poles and resonant nuclear reactions, II.

SOURCE: Zh. eksper. i teor. fiz., v. 47, no. 2, 1964, 697-707

TOPIC TAGS: resonance scattering, compound nucleus, Regge pole, angular distribution, Coulomb repulsion force, particle scattering

ABSTRACT: The first part of the paper (ZhETF, v. 46, 1830, 1964) was devoted to the possibility of experimentally observing the characteristic asymmetry of a resonance level, arising in the angular distribution of reaction products when the resonances of a compound nucleus are described as moving Regge poles. In this part of the article the authors derive formulas for the characteristic asymmetry, taking the Coulomb interaction into account. Formulas are obtained for the characteristic asymmetry of levels of charged spinless par-

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ACCESSION NR: AP4043648

ticles, and it is shown that the Coulomb interaction changes the behavior of the characteristic asymmetry in an essential manner, particularly in the domain of large scattering angles. Numerical calculations are made for the elastic scattering process $C^{12}(\alpha,\alpha)C^{12}$. The numerical calculations lead to the conclusion that the contribution of the characteristic asymmetry to the differential cross section of resonant scattering can reach 5--20% and should be easily observed experimentally, and that account of the Coulomb interaction increases sharply the effect of the characteristic asymmetry for large scattering angles. "The authors thank I. S. Shapiro for discussions and A. S. Kronrod and L. M. Voronina for performing the numerical calculations." Orig. art. has: 3 figures, 27 formulas, and 1 table.

ASSOCIATION: Institut teoreticheskoy i eksperimental'noy fiziki GKAE (Institute of Theoretical and Experimental Physics GKAE)

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ACCESSION NR: AP4043648

SUBMITTED: 02Mar64 ENCL: 00

SUB CODE: NP NR REF SOV: 002 OTHER: 005

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"APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001342410014-1

NABIYEV, M.N.; PALETSKIY, G.V.; ANISIMKIN, I.G.; REBENKO, M.; KALININ, Ye.P.; TROFIMOV, S.M.; VURGAFT, G.V.; POPOV, V.S.; KOROL', P.Z.; KULIK, A.A.; KAL'MAN, L.A.; FAREER, S.I.; MATVEYEVA, N.Ye.; GAVRILOV, V.S.; KADYROV, V.K.; IL'YASOV, A.I.; YAKUBOV, S.G.; PROSKURIN, M.P.; NESTERENKO, A.P.; DEZHIN, N.D.; KOCHEROV, V., red.; POPOV, V., red.; SALAKHUTDINOVA, A., tekhn. red.

[Chirchik, a city of major industrial chemical complexes] Chirchik - gorod bol'shoi khimii. Tashkent, Gosizdat UzSSR, 1962. 82 p. (MIRA 16:6)

1. Chlen-korrespondent Akademii nauk UzSSR (for Nabiyev).
2. Rabotniki Chirchikskogo elektrokhimkombinata (for all except Nabiyev, Kocherov, Popov, V., Salakhutdinova).
(Chirchik--Chemical plants)

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"APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001342410014-1

POPOV, V.S.

"History of geological studies of the Donets coal basin" by E.O. Novik, V.V. Permiakov, E.E. Kovalenko. Reviewed by V.S. Popov. Sov. geol. 6 no.1:155-157 Ja '63. (MIRA 16:6)

(Donets Basin--Geology)
(Novik, E.O.)
(Permiakov, V.V.)
(Kovalenko, E.E.)

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"APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001342410014-1

SEMENENKO, N.P., akademik, otv. red.; TKACHUK, L.G., doktor geol.-miner. nauk, zam. otv. red.; SUBBOTIN, S.I., akademik, red.; LAZARENKO, Ye.K., red.; BELEVTSEV, Ya.N., red.; POPOV, V.S., red.; SOLLOGUB, V.B., kand. geol.-miner. nauk, red.; MEL'NIK, A.F., red.; ZAVIRYUKHINA, V.N., red.; DAKHNO, Yu.B., tekhn. red.

[Materials of the Fifth Congress of the Carpatho-Balkan Geological Association; reports of Soviet geologists] Materialy; doklady sovetskikh geologov. Kiev, Izd-vo Akad. nauk USSR, 1962. 309 p. (MIRA 16:8)

1. Karpato-Balkanskaya geologicheskaya assotsiatsiya. 5th, Bucharest, 1961. 2. Akademiya nauk Ukr.SSR (for Semenenko, Subbotin). 3. Chleny-korrespondenty AN Ukr.SSR (for Lazarenko, Belevtsev, Popov).

(Carpathian Mountains--Geology)
(Balkan Mountains--Geology)

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POPOV, V.S. and MANSUROV, N.N.

"Theoretical Electrical Engineering". Gosenergoizdat, Moscow/Leningrad, 1949, 485 pp, 14 rubles 60 kopeks.

SO: W-14151 11 Oct 1950.

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"APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001342410014-1

POPOV, Viktor Stepanovich

Electrical engineering; a textbook. Izd. 3. Moskva, Gos. energ. izd-vo, 1950.
496 p. (51-29070)

TK145.P7E 1950

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"APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001342410014-1

POPOV, V.S.

Elektrotekhnicheskie izmeri iia i pribory. Izd. 4. zanovo perer. Dopushcheno v kachestve uchebnika dlia tekhnikumov. Moskva, Gosenergoizdat, 1952. 384 p., illus., tables, diagrs.

Title tr.: Electrotechnical measurements and instruments. Approved a a texttook for technical schools.

TK401.P65 1952

SO: Aeronautical Sciences and Aviation in the Soviet Union, Library of Congress, 1955.

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"APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001342410014-1

POPOV, V.C.
PHASE I

TREASURE ISLAND BIBLIOGRAPHIC REPORT AID 159 - I

Call No.: TK301.P65 (1952)

BOOK

Author: POPOV, V. C.
Full Title: ELECTROTECHNICAL MEASUREMENTS AND APPARATUSES. (4th Ed.)
Transliterated Title: Elektrotekhnicheskiye izmereniya i pribory

Publishing Data

Originating Agency: None
Publishing House: State Publishing House of Literature on Power Engineering
Date: 1952 No. pp.: 384 No. of copies: 15,000
Editorial Staff
Editor: Kuz'min, S. M. Tech. Ed.: None
Editor-in-Chief: None Appraiser: None

Text Data

Coverage: The textbook contains descriptions and diagrams exclusively of electrical instruments for measuring current voltage, resistance, inductance, capacity, power, etc. The basic theory of instruments is omitted, but the final formulas and methods of use of instruments for various practical problems are given. Computations of constants and instrument error are illustrated in examples. One chapter of the book contains laboratory work on calibration and use of instruments. The last part of the book has a list of various instruments made in the USSR with their specifications and classifications.

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"APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001342410014-1

POPOV, V.C.

Elektrotekhnicheskiye izmereniya i pribory

AID 159 - I

Purpose: The book will be of interest only for comparison of laboratory practices in the U.S.A. and U.S.S.R. The textbook for students of power and electro-mechanical technical schools, approved by the Ministry of Higher Education in the USSR

Facilities: Many names of scientists are given, from Lomonosov up to M. A. Shatelen, B. N. Blinov, and other present-day workers.

No. of Russian and Slavic References: None

Available: Library of Congress.

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APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001342410014-1"

"APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001342410014-1

POPOV, Viktor Stepanovich.

[Electrical engineering; 2nd edition] Elektrotekhnika. Izd.2., ispr. Moskva, Gos. energ. izd-vo, 1953. 528 p. (MLRA 7:3)
(Electric engineering)

APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001342410014-1"

"APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001342410014-1

MANSUROV, N.N.; POPOV, V.S.; SAPAROVA, A.L., redaktor; SKVORTSOV, I.M., redaktor.

[Theoretical electric engineering] Teoreticheskaia elektrotekhnika. Izd. 5. ispr. i dop. Moskva, Gos. energ. izd-vo, 1954. 527 p. (MLRA 7:6)

(Electric engineering)

APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001342410014-1"

"APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001342410014-1

POPOV, V.S.; MANSUROV, N.N.; NIKOLAYEV, S.A.; ANTIK, I.V., redaktor; FRIDKIN, A.M., tekhnicheskiy redaktor

[Electrical engineering] Elektrotekhnika. Izd. 3., stereotipnoe. Moskva, Gos. energ. izd-vo, 1954. 528 p. (MLRA 7:10)
(Electric engineering)

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"APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001342410014-1

POPOV, V. S.

POPOV, Viktor Stepanovich; MANSUROV, Nikolay Nikolayevich; NIKOLAYEV, Sergey Aleksandrovich; SOKHRANSKIY, S.T., redaktor; LARIONOV, G. Ye., tekhnicheskiy redaktor.

[Electric engineering] Elektrotekhnika. Izd.4-oe, perer. Moskva, Gos.energ. izd-vo, 1955. 408 p. (MLRA 8:12)
(Electric engineering)

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"APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001342410014-1

112-3-6193D

Translation from: Referativnyy Zhurnal, Elektrotekhnika, 1957, Nr 3, p. 164 (USSR)

AUTHOR: Popov, V. S.

TITLE: Theoretical and Experimental Investigation of Static Power Converters with Preheated Resistors (Teoreticheskoye i eksperimental'noye issledovaniye statricheskikh preobrazovateley moshchnosti s podogrevnymi soprotivleniyami)

ABSTRACT: Bibliographic entry on the author's dissertation for the degree of Candidate of Technical Sciences, presented to the Leningrad Polytechnical Institute (Leningr. politekhn, in-t), Leningrad, 1956

ASSOCIATION: Leningrad Polytechnical Institute (Leningr. politekhn.in-t)

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"APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001342410014-1

POPOV, Viktor Stepanovich; MANSUROV, Nikolay Nikolayevich; NIKOLAYEV, Sergey Aleksandrovich; USHENIN, V.A., redaktor; KONYASHINA, A.D., tekhnicheskiy redaktor

[Electric engineering] Elektrotekhnika. Izd. 5-oe, ispr. Moskva, Gos. izd-vo, 1956. 350 p. (MLRA 9:11)
(Electric engineering)

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POPOV, Viktor Stepanovich, kandidat tekhnicheskikh nauk; KASATKIN, A.S., redaktor; SKVORTSOV, I.M., tekhnicheskiy redaktor

[Electrical engineering measurements and instruments] Elektrotekhnicheskie izmereniia i pribory. Izd. 5-oe, ispr. Moskva, Gos. energ. izd-vo, 1956. 431 p. (MLRA 10:3)
(Electric engineering--Measurement)

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MANSUROV, Nikolay Nikolayevich; POPOV, Viktor Stepanovich; ZHUKHOVITSKIY, B.Ya., redaktor; VORONIN, K.P., tekhnicheskiy redaktor

[Theoretical electric engineering] Teoreticheskaia elektrotekhnika. Izd. 6-oe. Moskva, Gos. energ. izd-vo, 1956. 592 p. (MLRA 9:10)
(Electric engineering)

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28(5); 9(6) PHASE I BOOK EXPLOITATION SOV/3145

Popov, Viktor Stepanovich, Candidate of Technical Sciences

Elektrotekhnicheskiye izmereniya i pribory (Electrical Measurement and Devices) 6th ed., rev. Moscow, Gosenergoizdat, 1958. 379 p. 50,000 copies printed.

Resp. Ed.: A.S. Kasatkin; Ed.: Yu.S. Kazarov; Tech. Ed.: A.I. Kontorovich.

PURPOSE: The book was approved as a manual for students of tekhnikums by the Administration of Secondary Specialized Schools of the Ministry of Higher Education, USSR. It may also serve as a handbook for industrial engineers and technicians dealing with problems of electrical measurement.

COVERAGE: The book analyzes methods and instruments for measuring current, voltage, resistance, induction, capacitance, phase and frequency shift. It also considers magnetic measurements, electrical measurement of non-electrical quantities, and telemetering. Laboratory tests on electrical measurement and instruments are treated in a special chapter. The reader is assumed to have a knowledge of the fundamentals of electrical engineering, a-c theory, and elements of higher mathematics. No personalities are

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POPOV, V.S.

24(3) PHASE I BOOK EXPLOITATION SOV/1424

Mansurov, Nikolay Nikolayevich, and Viktor Stepanovich Popov

Teoreticheskaya elektrotekhnika (Theoretical Electrical Engineering) 7th ed. Moscow, Gosenergoizdat, 1958. 608 p. 200,000 copies printed.

Ed.: Zhukhovitskiy, B.Ya.; Tech. Ed.: Fridkin, A.M.

PURPOSE: This is a textbook on theoretical electrical engineering for students of tekhnikums specializing in various fields of electrical engineering. It was approved by the Administration of Special Secondary Schools, USSR Ministry of Higher Education.

COVERAGE: This is the seventh edition of the book, in which some symbols and terminology have been changed according to the recommendations of GOST-7000-00 (Elektrichestvo, 1957, No. 6). The book explains the physical processes occurring in electric and magnetic fields and in linear and nonlinear d-c and a-c circuits. It describes the basic methods of calculation employed in electrical engineering. It also describes laboratory work methods and illustrates various problems with numerous examples and exercises accompanied by their solutions. The authors thank Docent B.Ya. Zhukhovitskiy, Candidate

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AUTHOR: Popov, V.S. SOV/115-58-1-24/50

TITLE: A Compensating Telemetering System with Static Transmitter (Kompensatsionnaya teleizmeritel'naya sistema so statichesskim peredatchikom)

PERIODICAL: Izmeritel'naya tekhnika, 1958, Nr 1, pp 43 - 47 (USSR)

ABSTRACT: The electric systems with compensation, which are extensively used for short-distance telemetering, include, as a rule, a dynamic compensating element which has movable parts. This element's error passes into the results of measurements, and its inertia extends the damping time in the transmitting device. The article describes a new telemetering system with a static compensating element, developed by the author at the Institut elektromekhaniki AN SSSR (Electro-Engineering Institute of the USSR Academy of Sciences). The system is designed for measuring not only electrical values like a.c. and d.c. power, resistance, etc., but also such factors as the temperature, speed, density and composition of gases, or other factors which can affect resistance values. It can

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A Compensating Telemetering System with Static Transmitter

serve also for tele-measuring the a.c. power which can - with the use of a converter with heated resistances (bolometering power converter) - control the resistance of sensitive elements. There are 4 diagrams, 1 table and 3 Soviet references.

1. Telemeter systems--Design 2. Telemetering transmitters
3. Telemeter systems--Applications

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"APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001342410014-1

AUTHOR: Popov, V. S., Candidate of Technical Sciences SOV/105-58-9-15/34

TITLE: Power Measurement by the Temperature Comparison Method (Izmereniye moshchnosti sposobom ravnykh temperatur)

PERIODICAL: Elektrichestvo, 1958, Nr 9, pp 63 - 66 (USSR)

ABSTRACT: The method worked out by the author consists of measuring directly the difference of energy radiated by the heaters of the thermocouples, or by the heating conductors. For this, the characteristics of each thermocouple, or pair of heating conductors, must be similar to each other, but may otherwise have any shape whatsoever. The main advantage in power measurement by the temperature comparison method is that the readings are independent of the shape of the thermocouples' or heating conductors' characteristics. This enables a long non-quadratic section of the characteristic to be used, the accuracy of measurement thus being increased. Instead of a measuring instrument, a zero indicator is connected to the output of the thermocouple or heating conductor. These features permit a substantial

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simplification of thermocouple or heating conductor design, and, in particular, a use of thermocouples with one element instead of those having several elements. Those fields where power measurement by the method described is particularly promising are mentioned: 1) For the soundfrequency range, with an accuracy up to 0,01%. 2) Power measurement and recording in the wide frequency range. 3) Precise power measurement at a low power factor. There are 2 figures and 4 references, 3 of which are Soviet.

ASSOCIATION: Institut elektromekhaniki Akademii nauk SSSR(Institute for Electromechanics, AS USSR)

SUBMITTED: April 3, 1958

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SOV/119-59-2-6/17

8(2)
AUTHORS: Kovalevskaya, V. V., Popov, V. S., Candidates of Technical Sciences

TITLE: On a Method of Measuring the Phase Displacement of Two Tensions (Ob odnom metode izmereniya sdviga faz dvukh napryazheniy)

PERIODICAL: Priborostroyeniye, 1959, Nr 2, pp 16-18 (USSR)

ABSTRACT: The tensions to be investigated were stabilized at first. Then their sum or difference is measured depending on the phase angle between the tensions to be investigated, by means of an a. c. instrument. The newly developed apparatus employs a special thermistorized amplifier stabilizer which permits to stabilize the tensions to be investigated within a large range without affecting the shape of the tension. The device serves for measuring the phase displacements of small input tensions which are therefore amplified initially by the valve 6N8 and stabilized in the first stage by a thermistor, type TP2/0,5 and in the second stage by a thermistor of the type TP6/2. For measuring the current a magnetoelectrical microamperemeter with a measuring range up to 100 μA is used which is put in series to the rectifier DGTs-5 and an additional resistance R = 40000Ω. In order to protect the thermistors against over-

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loading in case of a steep voltage increase ballast resistors of 10 kΩ are put in series to the thermistors type TP2/0.5. The load capacity of thermistors type TP6/2 is four times that of type TP2/0.5. Therefore they need no ballast resistor in the end cascade.

Experiments showed that the measuring error, at a change of the voltages to be measured of 0.5 to 4.0 V does not exceed 1.5%. By means of a high-resistance voltage divider the voltage measuring range can be extended. The capacitors used in the phasemeter are liberally dimensioned. By experiments the additional error caused by a frequency change from 5 to 10000 cycles was found to amount only to 1.5% of the nominal test value. The measuring error of the phase meter due to changing the valves lies below 0.2%. Variations in the supply voltage of 20% result in a measuring error of less than 0.5%. Phase displacements in the range of from 0-120° can be measured. By an auxiliary device consisting of an ohmic resistance and an impedance the phasemeter can within a wide range also be used as frequency meters. The frequency meter sensitivity can be increased by using a resonance circuit as impedance.

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